

substances capable of slowing skin aging. Concurrently, research has been conducted in the medical sector to obtain products with anti-inflammatory activity, adapted to be used in particular in rheumatology and for the treatment of pathologies associated with oxidative stress and affecting the digestive and cardiovascular systems.

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CONT. [0003] Over the past few years, the research undertaken has been deliberately oriented toward the plant sector in order to avoid the infectious substances that may be found in animal extracts. Among these researches, the culture of microalgae has led to the obtaining of interesting products from the algal biomass.

[0004] EP 0 437 393 discloses a method and a photobioreactor adapted to the production and extraction of antioxidants from a culture of microorganisms, the method consisting of culturing in the photobioreactor microalgae suspended in a culture medium, the oxygen produced by the microalgae by photosynthesis being collected and then reinjected into the culture medium, separating the microalgae from the culture medium, dissolving them, grinding the solution, adding a solvent for solubilizing the antioxidants, and separating the liquid phases present.

[0005] EP 0 628 629 describes a process for the production and extraction of thermostable superoxide dismutases from a culture of microorganisms suspended in a culture medium and selected from among microalgae and cyanobacteria, this process consisting of culturing in a photoreactor aerobic, photosynthetic thermophilic microorganisms producing oxygen, and extracting the superoxide dismutases from the culture medium by cellular crushing, ultrafiltration and selective precipitation.

Please replace paragraph [0012] with the following paragraph:

B2 [0012] The supply of CO₂ for the culture medium, as well as the agitation necessary for a good development of the microalgae, can be ensured by a bubbling of air enriched with compressed CO₂ or by any other equivalent technique.

Please replace paragraph [0014] with the following paragraph:

B3 [0014] Next, the algae are separated from the culture medium by centrifuging or filtering. A filtering by an appropriate filter then makes it possible to separate the antioxidant extract.

Please replace paragraph [0022] with the following paragraph:

B4 [0022] The separation of the portion containing the SOD-like can be carried out by precipitation by a solvent such as ethanol, or by separation by an organic membrane such as a cellulose membrane, with pore dimensions comprised between 1,000 and 50,000 daltons. Two extracts are obtained, of which, containing the SOD-like, has an antioxidant and antiradical activity, whereas the other, containing the sulphated polysaccharides, has a tissue regeneration activity.

Please replace paragraph [0025] with the following paragraph:

B5 [0025] After 12 days, when the cellular density is optimum, 100 mg/liter, or 15 g of KHCO₃ is added; then the reactor is closed and the culture is allowed to continue for two days in order to create a metabolic forcing.

Please replace paragraph [0027] with the following paragraph:

B6 [0027] The extract thus obtained has a SOD like content of 30 U/ml, measured with the SOD-525 kit, and a sulphated polysaccharides (SP) content of 1 mg/ml.